MARKED UP VERSION TO SHOW CHANGES MADE

31. (Twice Amended) A preparation suitable for transporting active agents through permeability barriers, comprising a plurality of transfersomes in a medium, said transfersomes comprising a pharmaceutically acceptable lipid and a pharmaceutically acceptable surfactant which is compatible with said lipid, the ratio of said lipid to said surfactant enabling said transfersomes to undergo sufficient deformation to enable said transfersomes to pass as an entity through a permeability barrier which has pores smaller than the size of said transfersomes, wherein the total concentration of said lipid in said medium is from about 0.1% to about 30%, by weight and the ratio of lipid to surfactant is from about [5.5:1] 5:1 to about 1:500.

38. (Amended) Preparation as claimed in claim 31, wherein the total concentration of said lipid in said medium for application on plants is between 0.000001 [through] to 10 weight-%.

46. (Amended) A method of manufacturing preparations for the transport of agents through permeability barriers:

(A) forming transfersomes by combining a lipid and a surface active agent that can solubilize said lipid in a suitable medium and determining the ratio of lipid to surface active agent which enables transfersomes formed by combining said lipid and said surface active agent in said medium to undergo sufficient deformation to enable said transfersomes to pass as an entity through a permeability barrier which has pores smaller than the size of said transfersomes, and

(B) preparing said transfersomes in said medium such that the total concentration of said lipid in said medium is from about 0.1% to about 30%, by weight.

52. (Amended) [Preparation] Method as claimed in claim 46 wherein said transfersomes

have a double layer structure.

53. (Amended) [Preparation] Method as claimed in claim 46, wherein said lipid is a synthetic lipid.

54. (Amended) [Preparation] Method as claimed in claim 46, wherein said lipid comprises a glyceride.

55. (Amended) [Preparation] Method as claimed in claim 46, wherein said lipid is selected from the group consisting of glycerophospholipid, isoprenoidlipid, sphingolipid, a sulfur-containing lipid, and a carbohydrate-containing lipid.

56. (Amended) [Preparation] Method as claimed in claim 46, wherein said lipid comprises a fatty acid.

58. (Amended) [Preparation] Method as claimed in claim 46, wherein said lipid is selected from the group consisting of phosphatidylcholine, phosphatidylethanolamine, phosphatidyglycerol, phosphatidylinositol, phosphatidic acid, phosphatidylserine, sphingomyeline, sphingophospholipid, glycosphingolipid, cerebroside, ceramidepolyhexoside, sulfatide, sphingoplasmalogene, a ganglioside, and a glycolipid.

58. (Amended) [Preparation] Method as claimed in claim 46, wherein said lipid is selected from the group consisting of dioleoyl lipid, dilinoleyl lipid, dilinolenyl lipid, dilinolenoyl lipid, diarachidoyl lipid, dimyristoyl lipid, dipalmitoyl lipid, distearoyl lipid, phospholipid, diacyl lipid and dialkyl lipid.

59. (Amended) [Preparation] Method as claimed in claim 31, wherein surfactant is selected from the group consisting of nonionic surfactants, zwitterionic surfactants, anionic surfactants and cationic surfactants.

60. (Amended) [Preparation] Method as claimed in claim 31, wherein said surfactant is selected from the group consisting of a long-chain fatty acid, a long-chain fatty alcohol, an alkyl-trimethyl-ammonium-salt, an alkylsulfate salt, [a] a cholate-, [a] a deoxycholate-, [a] a glycodeoxycholate-, taurodeoxycholate, dodecyl-dimethyl-aminoxide, decanoyl-N-methylglucamide, dodecanoyl-N-methylglucamide, N-dodecyl-N, N-dimethylglycine, 3-(hexadecyldimethylammonio)-propane-sulfonate, N-hexadecyl-sulfobetaine, nonaethylene-glycoloctylphenylether, nonaethylene-dodecylether, octaethyleneglycol-isotridecylether, octaethylenedodecylether, polyethlene glycol-20-sorbitanemonolaurate, polyhydroxyethylene-cetylstearyl ether polyhydroxyethylene-4-laurylether, polyhydroxyethylene-23-laurylether, polyhydroxyethylene-8-stearate, polyhydroxyethylene-40-stearate, polyhydroxyethylene-100-stearate, polyethoxylated castor oil 40, polyethoxylated hydrated castor oil, sorbitanemonolaurate, lauryl-salts, oleoylsulfate-salts, sodium deoxycholate, sodium glycodeoxycholate, sodium oleate, sodium elaidate, sodium linoleate, sodium laurage, nonaethylene-dodecylether, polyethylene glycol-20-sorbitane-monooleate, polyhydroxyethylene-23-laurylether, polyhydroxyethylene-40-stearate, a sorbitane phospholipid, a monolaurate phospholipid, and [a] a lysophospholipid.

61. (Amended) [Preparation] Method as claimed in claim 35, wherein said agent comprises 1 through 500 I.U. insulin/ml.

62. (Amended) [Preparation] Method as claimed in claim 35, wherein said agent comprises between 20 and 100 I.U. insulin/ml .

63. (Amended) [Preparation] Method as claimed in claim 31, wherein the total concentration of said lipid in the preparation is between 0.1 through 20 [weight-%] % by weight.

64. (Amended) [Preparation] Method as claimed in claim 31, wherein the total concentration

of said lipid in the preparation is between 0.5 and 15 [weight-%] % by weight.

65. (Amended) [Preparation] Method as claimed in claim 31, wherein the concentration of said lipid in the preparation is between 2.5 and 10 [weight-%] % by weight.

66. (Amended) [Preparation] Method as claimed in claim 31, wherein said lipid is selected from the group consisting of phosphatidylcholine and phosphatidylglycol.

67. (Amended) [Preparation] Method as claimed in claim 31, wherein said surfactant is selected from the group consisting of lysophosphatidic acid, lysophosphoglycerol, deoxycholate, glycodeoxycholate, laurate, myristate, oleate, palmitoleate, phosphate salts thereof, sulfate salts thereof, a Tween-surfactant and a Myrj-surfactant.

68. (Amended) [Preparation] Method as claimed in claim 31, wherein the radius of said transfersomes in the preparation is between approximately 50 and approximately 200 nm.

69. (Amended) [Preparation] Method as claimed in claim 31 wherein the radius of said transfersomes in the preparation is between approximately 100 and approximately 180 nm.

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medium is from about 0.1% to about 30%, by weight and the ratio of lipid to surfactant is from about 5:1 to about 1:500.

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38. (Amended) Preparation as claimed in claim 31, wherein the total concentration of said lipid in said medium for application on plants is between 0.000001 to 10 weight-%.

C3

46. (Amended) A method of manufacturing preparations for the transport of agents through permeability barriers:

(A) forming transfersomes by combining a lipid and a surface active agent that can solubilize said lipid in a suitable medium and determining the ratio of lipid to surface active agent which enables transfersomes formed by combining said lipid and said surface active agent in said medium to undergo sufficient deformation to enable said transfersomes to pass as an entity through a permeability barrier which has pores smaller than the size of said transfersomes, and

(B) preparing said transfersomes in said medium such that the total concentration of said lipid in said medium is from about 0.1% to about 30%, by weight.

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52. (Amended) Method as claimed in claim 46 wherein said transfersomes have a double layer structure.

53. (Amended) Method as claimed in claim 46, wherein said lipid is a synthetic lipid.

54. (Amended) Method as claimed in claim 46, wherein said lipid comprises a glyceride.

55. (Amended) Method as claimed in claim 46, wherein said lipid is selected from the group consisting of glycerophospholipid, isoprenoidlipid, sphingolipid, a sulfur-containing lipid, and a carbohydrate-containing lipid.

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56. (Amended) Method as claimed in claim 46, wherein said lipid comprises a fatty acid.

57. (Amended) Method as claimed in claim 46, wherein said lipid is selected from the group consisting of phosphatidylcholine, phosphatidylethanolamine, phosphatidyglycerol, phosphatidylinositol, phosphatidic acid, phosphatidylserine, sphingomyeline, sphingophospholipid, glycosphingolipid, cerebroside, ceramidepolyhexoside, sulfatide, sphingoplasmalogene, a ganglioside, and a glycolipid.

58. (Amended) Method as claimed in claim 46, wherein said lipid is selected from the group consisting of dioleoyl lipid, dilinoleyl lipid, dilinolenyl lipid, dilinolenoyl lipid, diarachidoyl lipid, dimyristoyl lipid, dipalmitoyl lipid, distearoyl lipid, phospholipid, diacyl lipid and dialkyl lipid.

59. (Amended) Method as claimed in claim 31, wherein surfactant is selected from the group consisting of nonionic surfactants, zwitterionic surfactants, anionic surfactants and cationic surfactants.

60. (Amended) Method as claimed in claim 31, wherein said surfactant is selected from the group consisting of a long-chain fatty acid, a long-chain fatty alcohol, an alkyl-trimethyl-ammonium-salt, an alkylsulfate salt, a cholate-, a deoxycholate-, a glycodeoxycholate-, taurodeoxycholate, dodecyl-dimethyl-aminoxide, decanoyl-N-methylglucamide, dodecanoyl-N-methylglucamide, N-dodecyl-N, N-dimethylglycine, 3-(hexadecyldimethylammonio)-propane-sulfonate, N-hexadecyl-sulfobetaine, nonaethylene-glycoloctylphenylether, nonaethylene-dodecylether, octaethyleneglycol-isotridecylether, octaethylenedodecylether, polyethlene glycol-20-sorbitanemonolaurate, polyhydroxyethylene-cetylstearyl ether polyhydroxyethylene-4-laurylether, polyhydroxyethylene-23-laurylether, polyhydroxyethylene-8-stearate, polyhydroxyethylene-40-stearate, polyhydroxyethylene-100-stearate, polyethoxylated castor oil 40, polyethoxylated hydrated castor oil, sorbitanemonolaurate, lauryl-salts,

oleoylsulfate-salts, sodium deoxycholate, sodium glycodeoxycholate, sodium oleate, sodium elaidate, sodium linoleate, sodium laurage, nonaethylene-dodecylether, polyethylene glycol-20-sorbitane-monooleate, polyhydroxyethylene-23-laurylether, polyhydroxyethylene-40-stearate, a sorbitane phospholipid, a monolaurate phospholipid, and a lysophospholipid.

61. (Amended) Method as claimed in claim 35, wherein said agent comprises 1 through 500 I.U. insulin/ml.

62. (Amended) Method as claimed in claim 35, wherein said agent comprises between 20 and 100 I.U. insulin/ml .

63. (Amended) Method as claimed in claim 31, wherein the total concentration of said lipid in the preparation is between 0.1 through 20% by weight.

64. (Amended) Method as claimed in claim 31, wherein the total concentration of said lipid in the preparation is between 0.5 and 15% by weight.

65. (Amended) Method as claimed in claim 31, wherein the concentration of said lipid in the preparation is between 2.5 and 10% by weight.

66. (Amended) Method as claimed in claim 31, wherein said lipid is selected from the group consisting of phosphatidylcholine and phosphatidylglycol.

67. (Amended) Method as claimed in claim 31, wherein said surfactant is selected from the group consisting of lysophosphatidic acid, lysophosphoglycerol, deoxycholate, glycodeoxycholate, laurate, myristate, oleate, palmitoleate, phosphate salts thereof, sulfate salts thereof, a Tween-surfactant and a Myrj-surfactant.

68. (Amended) Method as claimed in claim 31, wherein the radius of said transfersomes in

the preparation is between approximately 50 and approximately 200 nm.

69. (Amended) Method as claimed in claim 31 wherein the radius of said transfersomes in the preparation is between approximately 100 and approximately 180 nm.

Please add the following new claims:

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70. (New) Preparation as claimed in claim 31, wherein said ratio of said lipid to said surfactant is from about 5:1 to about 1:5.

71. (New) Preparation as claimed in claim 31, wherein said ratio of said lipid to said surfactant is from about 12:1 to about 1:8.

72. (New) Preparation as claimed in claim 31, wherein said agent comprises between 1 to 500 I.U. insulin/ml.

73. (New) Preparation as claimed in claim 31, wherein the radius of said transfersomes in the preparation is between approximately 50 nm and approximately 340 nm.

74. (New) Preparation as claimed in claim 31, wherein the active agent is selected from the group consisting of an adrenocorticosteroid or its analogues, an androgen, an antiandrogen, an anabolic steroid, an anaesthetic, an analgesic, an antiallergic, an antiarrhythmic, an antiarterosclerotic, an antiasthmatic, an antidepressant, an antipsychotic, an antidiabetic, an antidote, an antiemetic, an antifibrinolytic, an anticonvulsant, an anticholinergic, an enzyme, a coenzyme, an enzyme inhibitor, an antihistaminic, an antihypertonic, an anticoagulant, an antimycotic, an anti-parkinson agent, an antiphlogistic, an antipyretic, an antirheumatic, an antiseptic, a respiratory agent, a chemotherapeutic, a coronary dilator, an antineoplastic, a diuretic, a ganglium-blocker, a glucocorticoid, an immunologically active substance, a contraceptive, a morphine-antagonist, a muscle relaxant, a narcotic, a nucleotide, a neurotransmitter, an ophthalmic, a sympaticomimetic, a sympathicoclytic, a parasympaticomimetic, a

parasympathicolytic, a protein, a protein derivative, an anti-psoriatic, a psychostimulant, a sleep-inducing agent, a sedating agent, a spasmolytic; a tuberculosis preparation, a vasoconstrictor, a vasodilator, a wound-healing substance and a combination thereof.

75. (New) A preparation suitable for transporting active agents through permeability barriers, comprising a plurality of transfersomes in a medium, said transfersomes comprising a pharmaceutically acceptable lipid and a pharmaceutically acceptable surfactant which is compatible with said lipid, the ratio of said lipid to said surfactant enabling said transfersomes to undergo sufficient deformation to enable said transfersomes to pass as an entity through a permeability barrier which has pores smaller than the size of said transfersomes, wherein the total concentration of said lipid in said medium is from about 0.1% to about 30% by weight, the ratio of said lipid to said surfactant being greater than the ratio of lipid to surfactant attained at a first maximum permeability resistance and less than the ratio of said lipid to said surfactant attained at a second maximum permeability resistance.

76. A preparation suitable for transporting active agents through permeability barriers, comprising a plurality of transfersomes in a medium, said transfersomes comprising a pharmaceutically acceptable lipid and a pharmaceutically acceptable surfactant which is compatible with said lipid, the ratio of said lipid to said surfactant enabling said transfersomes to undergo sufficient deformation to enable said transfersomes to pass as an entity through a permeability barrier which has pores smaller than the size of said transfersomes, wherein the total concentration of said lipid in said medium is from about 0.1% to about 30%, by weight and the ratio of lipid to surfactant is from about 5.5:1 to about 1:500.

77. (New) The method of claim 46, wherein said antidiabetic agent comprises from about 1 to about 500 I.U. insulin/ml.

C5 cont'

78. (New) The method of claim 46, wherein the radius of said transfersomes is from about 50 nm to about 340 nm.

79. (New) The method of claim 46, wherein the ratio of lipid to surfactant is from about 5:1 to about 1:5.

80. (New) The method of claim 46, wherein the ratio of lipid to surfactant is from about 12:1 to about 1:8.

81. (New) Method of claim 46, further comprising varying the ratio of lipid to surfactant in said transfersomes to obtain a first maximum permeability resistance, increasing the amount of surfactant relative to said lipid until a second maximum permeability resistance is obtained, and manufacturing transfersomes having a ratio of lipid to surfactant of said transfersomes which is greater than the ratio of lipid to surfactant attained at the first maximum permeability resistance and less than the ratio of lipid to surfactant attained at the second maximum permeability resistance.